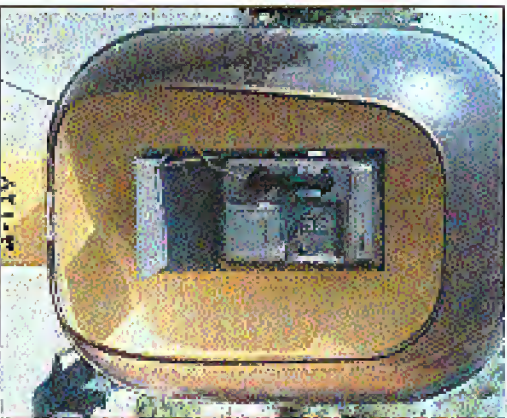
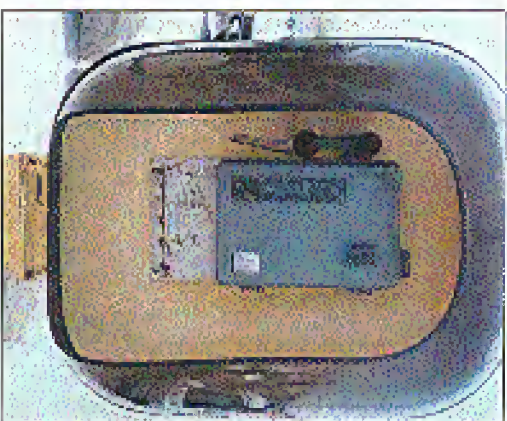


Payphones of Countries We're Mad At PART TWO = IRAN



In the holy city of Qom, this rather advanced model 1980s phone takes something called "art stickers."



This year basic payphone found all over Iran - this one was in Rasht. The instructions make it real simple. The instruction pad could be a bit smaller though.



Found in Afghanistan, this green monster is so haunting that it will give you the chills. It's not so much personal; plus you can hang a painting on the front of it.

There are even coin slots for each type of coin and the amount is displayed in dollars on the upper left.



All five places you might think this would be payphone is all you'll see. Found by a Canadian journalist, this phone has a silver coin elevator which would let about 50 seconds in the States.

All photos by Phindisk

Look on the other side of this page for even more photos!

26000

The Hacker Quarterly

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Winter 2001-2002

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"A person who, without permission of lawful authority, while the United States is at war or threatened with war, makes or attempts to make, or has in his possession or attempts to obtain, or aids another to obtain, any map, drawing, plan, model, description, or picture of any military camp, fort, armory, arsenal or building in which munitions of war are stored, or of any bridge, road, canal, dockyard, telephone or telegraph line or equipment, wireless station or equipment, railway or property of any corporation subject to the supervision of the public service board, or of any municipality or part thereof, shall be imprisoned not more than ten years."

Statutes like this exist throughout the country so we thought it would be best to play it safe and not risk printing something sensitive that could put us all at risk. After all, anything we print would somehow be definable in the above. This is just a temporary measure that will only last as long as we're in a war. As soon as terrorism surrenders, we will be back to normal.



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"Publication that is deemed to be a threat to legitimate penological objectives." - State of Washington Department of Corrections, 2001



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Ignore at Your Peril

2001-2002	4
The Security of the Inferno OS	6
Black Ice Defender - a Personal Firewall	9
The Future of Enhanced B11	11
Behind the Scenes on a Web Page	13
Cracking Clever Content	17
Right Click Suppression	18
Fun with Radio Shack	20
Building a Floppy Based Router	21
Build a Wooden Computer	22
Harnessing the Airwaves	25
Secrets of Rogers @Home	27
Basics on Answering Machine Hacking	28
Letters	30
Hacking the Highway	40
How to Hack from a Ram Disk	42
Hacking with Samba	44
Fun Facts about Wal-mart	46
MS - Far from Unhackable	53
Examining Student Databases	54
Marketplace	56
Meetings	58

2001-2002

2001 has been a most difficult year in so many ways. History has been forever changed by world events and the efforts will continue to shake down on our individual lives for a very long time. Despite this, we must look to the battles we've chosen to embark upon with our complete attention, despite the dramatic changes in society which may overshadow them. Otherwise we run the risk of giving up the battle before we even begin to fight it.

We know that freedom of speech - even freedom in general - is considered by an increasing number to be subject to restrictive conditions in the interests of "security." Never mind that total security is completely elusive. There will always be someone claiming we can do better by closing off yet another avenue of activity, beliefs, or speech. And simplisms, fueled by mass media hysterics, will continue to believe it.

That's why it's never been more important to get involved in preserving your rights before they get signed away. Anyone who tells you that this is somehow in opposition to the interests of our nation has an agenda we find frighteningly disturbing. The fact that many of these people are extremely powerful is certainly cause for concern. But the real battle won't be lost until the rest of us acclivity start to accept this garbage.

We continue to fight legal battles for the absurdly simple reason that they need to be fought. To choose not to do this would grant a default victory to those challenging what we believe to be our rights. If we wait for someone else to come along and fight the battle in places of us (either because they have more resources or even because they may look more respectable than the likes of us), we risk their not standing behind the issues as much as we want them to. And we also risk such people never coming along in

the first place.

In some ways, it's an honor to be sued. We're basically being told to put up or shut up, to prove our points, to actually stand up for what we believe in. Too many times we as individuals grow complacent. We say what we believe but completely enable when someone challenges those beliefs, either by giving in or by not defending ourselves as well as we could. But when we are actually sued and faced with the prospect of losing a great deal because of what we say and do, then we are forced to look inside ourselves and see if we really do believe as much as we say we do. We're happy to have gone through that and to have come out of it knowing that our beliefs are strong and ready to undergo these tests. And in so doing, we have found many others who feel the same.

Although we recently lost the Second Circuit Court of Appeals decision in the DeCSS case, our legal team made the most compelling argument possible. We still strongly believe that computer source code is speech and is entitled to all the protections that speech is normally afforded. We still believe that the Digital Millennium Copyright Act is a gross violation of not only free speech but of the concept of fair use and that it sends a chilling signal throughout our society. We've seen professors introduced into our research their research be- cause a powerful group of corporations threatened to prosecute them under the DMCA. Imagine being prosecuted for doing research! We've seen computer users thrown out of commercial systems and banned from school networks for merely being accused of possessing information that the DMCA defines as a potential threat, information that would have severely raised an eyebrow a few years ago. And we've seen a growing realization among our read-

ers and others that the DMCA is well on the way to making publications like ours illegal to print, possess, or read.

Our loss in this fight does not signal the end. Far from it. We intend to take this case to the Supreme Court so that our entire court system can be given the opportunity to correct this egregious wrong. Failing that, other cases will be fought, among them the Dudley Sklyanov case which will go to trial sometime in 2002. Although it took far too long, basic humanity finally managed to prevail in this case. After an unconscionable period of being (arbitrarily) detained in the United States for his part in writing a computer program for Russia, Sklyanov was finally allowed to return home in late December, on the condition that he return to give testimony in the trial, which will now focus on his company (Phantomsoft). The authorities are trying to spin this to make it seem as if Sklyanov is no longer affiliated with his company and will be testifying against them. In actuality he is still very much with them and is looking forward to telling his story at the trial. When this happens, the world will bear witness to the absurdity of this law and how it's damaging researchers and developers all around the world. Nothing will make technological innovation go to a halt faster than the continued existence of the DMCA and similar laws in other parts of the world.

Ford if it takes a hundred cases of people challenging the DMCA, we are confident that there is no shortage of individuals who will proceed step forward to defend the rights they believe in. As our leaders are so fond of saying, we are in a war and we must all do our part and make sacrifices. Some of those sacrifices may be very costly. But as we argue we ever really believed that the cost of defending free speech would be cheap?

Not all the news is bad. On December 30, a Federal court ruled in our favor in the Ford case. If you recall, this was the lawsuit that sought to prevent us from forwarding a controversial document (www.fordgeneral-motors.com) to the web page of Ford (General Motors' competitors) as a form of sat-

ir humor. Regardless of whether or not people were offended by this, we felt it was absolutely imperative to protect the right of Internet users to print their documents whenever they pleased. Ford felt otherwise, claiming that what we did was somehow trademark infringement. They firmly believed (as did much of corporate America) who had their eyes on this case) that *anybody* had the right to link or forward to their site without their explicit permission. Had we opted not to embark upon this fight, a very bad precedent would have been set and one more right of speech would have been lost because nobody cared enough to fight for it.

We are fortunate that the judge saw the fallacy of Ford's arguments. It's great that significant victory can be achieved within the system. Lately it's seemed as if such victories are very few and far between. All the more reason for us to fight even harder for them.

Of course, you won't see much in the way of mass media coverage of this story. Had we lost, it most likely would have been all over the papers as another example of hackers getting their just desserts and society being made more secure. But the fact that you probably didn't read about our victory in all the mainstream places doesn't make the story any less important. It merely underlines the growing insignificance of the mass media itself and how replacing their self-serving agenda is paramount to winning such battles and ultimately preserving our endangered freedoms.

It's likely to become even more difficult to challenge the injustices that lie ahead in the coming months and years. We'll certainly see a good deal of reprehensible opportunism on the part of the powers that be as they try to tie their anti-individual agendas to the fight against terrorism. We must not allow them to legitimize their delusions in this manner. And we must do our best to reach those who might not otherwise see how they are being taken advantage of. This will be our biggest challenge for 2002.

the steel and concrete buildings of a large city while Network-Based ALL would fail in rural areas with limited cell tower coverage. Therefore, it would appear that Handset-Based ALL is the choice for rural settings while Network-Based ALL would be the best solution for urban areas. In addition, some companies may deploy hybrid systems that use both GSM and network-based technologies.

Implementation

The FCC has set two implementation phases for E911 services roll-out. Phase 1, which began in April 1998, required that wireless carriers provide the 911 caller's phone number and cell site to the local PSAP. Phase II went into effect in October, requiring that all carriers begin selling E911 capable phones starting October 1, 2001. Also, as of October 1, 2001 or within six months of a request from a PSAP, wireless carriers must be able to locate 67 percent of land-set handset callers, within 50 meters, and 95 percent of callers within 150 meters. At the same time, they must be able to locate 67 percent of network-based callers within 100 meters and 95 percent within 500 meters.

Sprint was the only company to actually meet any of the requirements with their Sprint PCS SPH-N3400 made by Samsung. And with more deadlines coming up, it appears unlikely that wireless carriers will actually meet them on time. Of all new handsets being activated, 25 percent are supposed to be ALL capable by December 31, 2001, 50 percent by June 30, 2002, and 100 percent by December 31, 2002. The FCC expects to have 95 percent of all cell sites using ALL capable handsets by the end of 2003.

Privacy Issues and Concerns

E911 services are causing whether we like them or not, so privacy and security issues must be considered and made public. Originally, the FBI wanted to have ALL services be "always on" for law enforcement purposes. The thought of federal agencies having the ability to track anyone carrying a cell phone at any time caused enough public opposition that the original proposals were changed. Now ALL services can be shut off by the user at all times except during a 911 call. This approach seems to be a decent compromise and reduces some of the chances for government abuse. Even companies seem to

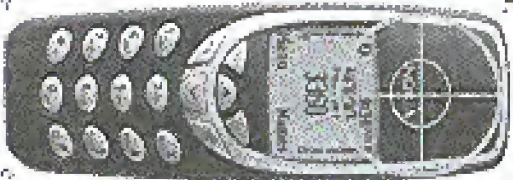
have heard the public cry for privacy, with Qualcomm announcing that their handset-based ALL technology will only broadcast a user's location when they press an "I am here" button.

However, despite these assurances, some wireless carriers are planning to offer "location based services" for their users (local movie times, McDonald's locations, etc.). The threat of privacy abuse by corporations does because a major concern. Even if users have the ability to turn off their ALL services, we all know that most will just leave them on all the time. This will allow companies to track users and develop demographics and marketing information based on whom they go how long they stay there, and other personal habits. It is then only a matter of time before advertising companies use this information to send location targeted ads straight to your phone. Most disturbingly, even if the government isn't directly tracking your location, local and federal law enforcement use only a warrant away from getting any of your wireless carrier's location information.

Conclusion

In the end, it would seem that the most disastrous parts of the E911 plans have been dropped, leaving a program of enhanced emergency services that currently don't exist that had, in fact, respect. E911 has so far been a success for all parties involved. However, the price of location is eternal vigilance and while some privacy issues have been averted, other ones have taken their place. Whether it be by government agencies or corporations, abuse of location based information can erode our privacy just the same.

Now you know the basics of E911 - how it works and what to look out for. It is up to all of us to keep a watchful eye on how it is implemented over the next few years.



BEHIND THE SCENES ON A WEB PAGE

by angela@earthlink.net

Have you ever wondered what exactly happens when you go on the Internet, type (or click) on a URL, and access a web site with your browser? How do all those images, text, multimedia, spreadsheets and lots of other things "magically" appear on your screen? It's all rather mysterious, isn't it? Wanna take a lookie-see "behind the scenes"? That is what this article is all about.

First, let's mention a few myths here and there in some locales. Very few web sites are actually profitable (making enough to even pay for the bandwidth). That is why most dot-com sites draw all sorts of ads and/or pop up banners at you. But wait, have you ever noticed how all of those advertisements are on top of the page and use the first thing to appear (the "banner")? Have you ever wondered how many cookies an average web site sends onto your IP? Ever heard of companies such as DoubleClick, Ariba.com, Akamai? If yes, do you know what they do to make money? When you use a search engine, do you ever wonder why all the links you find on page one are major commercial companies' sites? Weren't you supposed to find a huge list of advertisements (advertisements) to fit what you were looking at (begin to pop up on your screen)? All these questions, huh?

Here are the tools I will be using to unveil all those "secrets": Your ordinary web browser (Netscape, Internet Explorer, EditDial (a free one, same as Windows's Notepad but of course it does a lot more), a good firewall such as @Guard (both the gui and gui-less), and my brain. I will use @Guard's wonderful logging capabilities and firewall window to monitor all the connections my web browser will make in the course of my investigation, no matter how short-lived they may be, heh-heh. The web site I will be looking at is <http://www.wired.com/news/technology>. From Wired Magazine, a tech news site which I read almost daily. For this session, I will be accepting all ads, cookies, Java, JavaScript, ActiveX, and everything else they throw at me. I'm here to @Guard's firewall window and I am ready to begin!

I start Netscape, click on the <http://www.wired.com/news/technology> link and immediately begin checking my connections by refreshing the option on the firewall window. Here is what appears:

Executable	State	Remote	Local	Port	Sent	Recv
NETSCAPE.EXE	Connected	all12.g.akamai.net:80	myPC	2372	371	503
NETSCAPE.EXE	Connected	all12.g.akamai.net:80	myPC	2373	368	882
NETSCAPE.EXE	Connected	ltdldlpcos.com:80	myPC	2374	850	419

Hmmmm.... Rather interesting, isn't it? Let's go over each port and explain what we are looking at exactly:

- NETSCAPE.EXE is the browser, of course.
- Connected: That means Netscape is reaching out and connecting right now.
- Remote is the remote server Netscape is connected to (in this case, it's two servers named all12.g.akamai.net and ltdldlpcos.com both using server port <http> (for 80)).
- Local is my PC and Port is what port is being used on my PC. (in this case, it's three ports: 2372, 2373, and 2374).

Sent and Received are bytes sent by my PC and received by my PC. Anything jumping at you already? I sure hope so! I do not remember asking to connect to either all12.g.akamai.net or ltdldlpcos.com, but rather to <http://www.wired.com/news/technology>. So where do all these places and more importantly why are I connecting to them and why are I sending and receiving data (without them?) Small as it may be - 371 bytes is next to nothing!

Okay, and since I used Netscape for "Wired" do before accepting any "Cookies" I get this lovely message on my screen:

The server www.wired.com wishes to set a cookie that will automatically be sent to any server the browser visits. The name and value of the cookie are: www.wired.com. The cookie will expire on Dec 31 15:59:11 2002. Do you wish to allow the cookie to be set?

Having said I go back to the technology.html file and search for the doubleclick.net string first and again I find numerous references such as:

```

<script src="http://doubleclick.net/jump/wm/technology?h=netisz=46&v=601;gfhlc=1;gpos=1;
fontquery=adult;ord=2215222&30?" target="_top"
</script>
<img height=60 SRC="http://doubleclick.net/wm/technology?h=netisz=46&v=601;
gfhlc=1;gpos=1;gcategory=adult;ord=2215222&30?" />

```

How interesting! Besides connecting to doubleclick.net, they also send images using height=60 SRC=... from their server <http://doubleclick.net/wm/> to my PC. Came to guess what kind of images these might be? Well, doubleclick are notorious for their ads. In fact, a big snark was raised last year when it was found out how they began combining their ads with cookies, thus tracking and making detailed reports on everyone who is stupid enough to even click on an ad. Just for the fun of it, I again counted how many times my browser had to connect to doubleclick.net to receive all the images. This time it was only seven times. Well, I guess that's better than 36 times! Yeah, right!

I let's play with the doubleclick ad now and see if we can learn anything interesting from it. On the web page I run my mouse over it and carefully watch Netscape's status bar. Here is what I get:

```

http://doubleclick.net/dclick/331585490-0-1-36340986-1-46&v=60;000115531
http://doubleclick.com/features/gpl...

```

and my browser runs into the end of the screen on the right side. Again that looks appears, eh? Almost like it's following us everywhere we want go! Wanna grab the whole string from the HTML code? Bertha million bytes I can find it in case. Hehe, 500? Didn't link so either. What the hell I say, let's check on it, see what happens and where it will lead us. Immediately, I begin to see the source. Content: Contacting Host: doubleclick.net... as before, over and over and over again. Transferring data from: <http://doubleclick.net/wm/>... and I am sent to <http://doubleclick.com/cookies/gplidby/>. I guess you know it at the moment but no, scrolling away the night, etc. with that music from some web site. I probably went and the page has loaded. Then since I don't care to get any really material, I use the Back button to go to the original Microsoft page. And the ad has now changed. Hmmm...

Since I simply love punishment, I again click on the ad, and now I am sent to:

```

http://www-3.ibm.com/e-business/gplanov/stanov.1.html?formid=15&KIP_Site=902&
K_Campaign=101C#E02&P_Creative=konstav&C=innovations_W3&K=konstav&R=lyons
M=ad&KIP_Vantiv=

```

And when I go back to Microsoft I am not surprised to see that the ad has changed again. Noticed all those Lyons references all over the place in all the URL links?

Finally, I check the cookie file in C:\Program Files\Netscape\Profiles\jules\ folder. Here is the list of all the cookies I allowed in earlier:

```

lycos.com TRIPLE/EAT SE 214740VSA4 lobad
401M005081033951D01483A4BE11070003B00D14000008909

```

There are those Lyons and label names yet again. Funny, eh? Lyons, Lyons, Lyons, Lyons, Lyons, Lyons, even where even it was a Microsoft cookie!

Let's review every thing we have learned so far. When we click on an ordinary web page to access it, our browser reads the HTML code of that web page and most likely it also opens numerous other short-lived back door connections to various other web servers which contain the images and the ads for the original web site. Usually, an average web page will contain up to between four and nine ad servers and get data from them. The most common (the ones I know of) are banners which "serve" images, doubleclick, which serves both ads (in form of images) and cookies embedded into the ads. All of this surreptitious activity can easily be spotted with a good firewall and a bit of patience.

Are you starting to feel a little uncomfortable now, seeing all these "behind the scenes" activities happening just to read one hour's worth page? Personally, all that connecting to multiple servers and sending and receiving data from them makes me highly annoyed because I know exactly what doubleclick and Akamai do. Numerous articles have already been written about doubleclick and I don't have to repeat them here.

To summarize: To survive the collapse of the NASDAQ, most commercial bastards on the Internet have been trying to find new, various ways to make money. They throw as many ads as it is possible and try to compile a very detailed use of all of our online activities using cookies, ads, web bugs, java, javascript, and other known and unknown ways. Internet companies serving "content"

(the news, information, etc.) get into contexts with sleazebags such as doubleclick, akamai, and others, and create databases out of every bit of information they can squeeze about you and your surfing habits. Do you know how many people are monitoring, logging, classifying everything you see during online night now? Not privacy important to you? Personally, I say that anyone who reads you without your permission is your enemy. I say we must fight them with everything we got including but not limited to: knowledge of how our PCs and all of our software work, a good firewall, and last but not least our brains!

Don't feel yourself. These guys don't have any shame or remorse. All the very juicy information they collect about you is later sold for a lot of money to effective companies that may be interested in this kind of stuff (and me there are a lot). You almost had check what your favorite web page is doing behind your back. Beatcha you will be surprised.

CRACKING CLEVER CONTENT

by Jukkaehru

At first when I had heard about "Clever Content" from *PCW Magazine* and what it was capable of, I was, to say the least, quite intrigued. It seemed that this was some new (and seemingly overpriced) technology by Alchemedia to protect images by preventing them from being printed, saved, or otherwise captured. After a lot of experimenting, I found that Clever Content has multiple safeguards.

How It Works

The first safeguard is the easiest to get past. It's the HTML encoding parameter. To prevent viewing the source in Internet Explorer, the "Content-Encoding" parameter is changed to "text/SSV;L". This disables "Save", "Print", and "View Source" in Internet Explorer (if doesn't disable "Print" though).

Next, a special DLL is used to invoke a special method of drawing the image. Since internet use (CID) is an ordinary way, the image cannot be captured by ordinary means. The DLL is named "STRUCTURE.DLL", and is usually located in the "C:\windows\Downloaded\Program Files" directory. By looking in the Registry, you can see that the ActiveX name is "CscFile", and that its CLSID is "{0122955F-1F40-11D2-A158-0060979AEEB8}".

Another safeguard within the ActiveX DLL is a routine that detects screen-captures and debugging programs. If it finds either one, it will use *weck*. Luckily, it wouldn't detect the Microsoft Visual Studio Debugger. With further debugging, I found the Type Library for the control. There were lots of interesting strings, such as a MimeType event. The values for these properties can be found within the embedded JS file in the HTML page. Alchemedia encoded most of them in escape sequences - not that hard to decode.

How To Capture Images

It took me a bit of time to figure it out, but I finally found out how to capture images "protected" by Clever Content. First, get a copy of Lotus ScreenCam 97 (it's free from IBM). With the protected image being shown, start a video-only capture that lasts for at least one second. Save the video as an uncompressed AVI at 2 FPS and load it into AVIEdit (another freeware program, available from Microsoft's website). Navigate to the frame where the protected image is displayed and hit "Print Screen". Paste the image into Paint, crop it, and save it. Voila! No more protected image.

Conclusion

Hopefully, Alchemedia has learned that once something is posted on a web site, you cannot prevent it. Do realize how many players you cross your customers' info downgrading.

right click suppression

by Rob Rubin

I was reading RFC2 and saw a letter from ank@st describing how to get around the right click suppression so postdevelopment in today's web page design. The reason for the suppression is, at least in my opinion, to keep site from "stealing" the code or saving the pictures (this is pointless as every thing you view on the web is in your browser's cache). Try to envision a web where you cannot "save source" or right click and "Save As...". In light of the DoCSS case and the trademark threat, it is pretty obvious we are going that way.

I am going to show how to suppress a right click on a web page using Java script, and then how to get information from a "right click suppressor" page without relying on the cache (as this may be unavailable in the future).

The Lock Down

To lock down our page, first we catch right clicks, then we suppress the mouse. In the code below, the onmousedown function and the body tag catch the right click for most of the browsers. The actual suppression follows in the javascript function onMouse.

```
<html>
<head>
<meta http-equiv="RightClick" />
<script language="javascript">
var IE=0;
function onmousedown()
{
    //So we know if its IE
    if(navigator.appName.indexOf(" Explorer ")>=1)
    {
        //old Netscape (NS4)
        //IE=1 && pass through our appVersion == 4.01
        document.captureEvents(Event.MOUSEBUTTONDOWN);
        document.onmousedown=onMouse;
        IE=1;
    }
    //NS6 event handler is kind of like java
    onmousedown=&&UIE==0) document.addEventListener("mousedown", onMouse, false);
}
function onMouse(e)
{
    //suppress mouse in IE
    if(IE==1) event.returnValue = false;
    //suppress mouse in NS4/5
    return false;
}
</script>
</body>
</html>
```

The key to this suppression is the event handler returning false. By returning false we are saying, "We got it, no other event needs to occur. Thanks." If we wanted to let the mouse pop up, but have some behavior between the right click and the mouse popping up, we could return true.

The Freedom

OK, now to get around this there are several simple things we can do. Let's start with how to view the code, and then how to save the pictures, Java applets, flash, etc. (assuming the mouse option is unavailable).

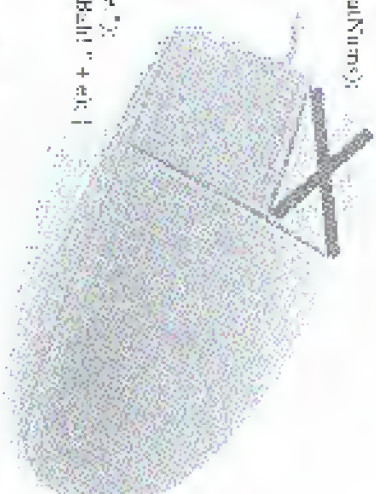
Go to the page in Lynx and view source. Java script has no effect on Lynx. If for some reason Lynx is confused (OK - I am really stretching it now), you can just set the browser and get the

code from port 80 yourself. Either to port 80 and type "GET /about.html.html".

To get pictures is equally as simple. Can anyone say "perl screen"? No matter what anyone comes up with to block picture saving, you still have to be shown the picture or some form. However, screen capture won't work for animated gifs, flash, and other moving visuals. To get these files you can, again, set the browser and just get the picture from the server. The following is a simple Java application to demonstrate how to download a file from a URL.

```
import java.io.*;
import javax.net.*;

public class grabfile {
    public static void main(String[] args) throws Exception {
        if(args.length < 2)
            System.out.println("Usage: java grabfile <URL> <file>");
        System.exit(1);
        URL myFile = new URL(args[0]);
       URLConnection conn = myFile.openConnection();
        int inputName;
        int i;
        //Open two streams, one for file output use the URL input
        DataOutputStream fout = new DataOutputStream(new
        FileOutputStream(args[1]));
        // While the stream is not -1 (EOF)
        while((inputName = conn.read()) != -1)
            //write to the picture file
            fout.write(inputName);
        //Clean up.
        fout.close();
        myFile.close();
        //...and a little message
        System.out.println("Done.");
    }
}
```



The application, in theory, can download any file that has a URL. There is really no way that I can see to keep content from being saved due to the fact that the information needs to be sent to the receiver's computer. Trying to lock down a page is counter to the whole reason for the Internet anyway - freedom of knowledge. If you want some security, use SSL. But suppressing right click as security... come on. The only thing this does is keep new HTML Java script programmers from learning.

I hope my vision of a non-view source web is just paranoia, and I hope these examples have sparked your interest.

Fun with Radio Shack

by Yanning Linquist
centinn@ingpint@chudman.com

In the tradition of writing articles about various big names in corporations, I've come up with another composition spot which is quite fun: Radio Shack.

Let me begin by stating that I am writing this article from Canada and most of the articles comes from my experience with Radio Shack stores in Toronto at the Eaton Centre and Fairview Mall, and Montreal at the Grosvenor Mall. There are some parallels to United States Radio Shack stores (I've had experience with them in Beverly Hills and various locations in Los Angeles and New York), and they will be drawn in this article.

Canada's Radio Shack Kiosk

Canada's Radio Shack stores have a special program running on their Windows 2000 machines which disables use of the Desktop or Start Menu, and in some cases the right click function on the mouse (see I NEVER there soon). The program, called "Kiosk v1.XX" where XX is the version number I've seen from Kiosk v5.0 to Kiosk v6.0, including Kiosk v2.2, is Canada's Radio Shack website: www.radio shack.com/. The Kiosk program doesn't allow a user to surf the internet freely (even though at all the Radio Shacks I visited in Toronto they were all online via dedicated line and were open for a customer to use) - it limits itself to Radio Shack's Canada website. We can easily bypass this by conducting a little derivative work.

Surfing Kiosks

On the home page of the Kiosk program on the upper right hand corner there is an icon for a shopping cart program. We'll click on it - they allow you to store items you wish to purchase until the "checkout" where you enter all the credit card information and give away your file to a company. The icon is titled "View Cart Checkout". If you click on it, it will lead you to a "secure" page. You know it's secure because you see the little yellow locked padlock on the bottom right-hand corner of the screen. It's secure. Don't question the security. Don't. Anyway, if right-clicking was disabled by there, it should be enabled now (it was the only, if you right-click anywhere on the page and scroll down to "Properties", another window will pop up. You can click on "Content Advisor" and then on the third window that pops up, "Content Advisor". There you'll see these things: The issuer of the content that says the site is secure, great, likely verified, Verizon's website, and Radio Shack's website. What you can do now is double-click on Verizon's website, and an Internet Explorer

window should pop up, allowing you to surf the Web freely. If this doesn't work, because I've encountered pages where it hasn't, you may simply do the following: right click on the page, go to "Content Advisor", "Issuer Statement", and "Allow Info". Verizon's website should pop up to an IE browser.)

United States Kiosks

I haven't seen a Kiosk program, per se, in the United States. If they do have a low-resolution cart kiosk program, you can find ways of bypassing it: browsers by playing around with their website from home. What I have seen at US Radio Shacks are programs that come bundled with the computers on display. In all my experience (which may be limited in comparison with your experience, so forgive me) the desktop is accessible but certain items have been removed or hidden, for example. You can use the old-school method for this one: If they've got the "My Computer" icon enabled, simply double-click and use the window to type in your URL. Or you may just want to view the contents of the computer. You can do this with pretty much any icon on the Desktop that you can double-click.

Breaking Free From The Kiosk

This pertains to the Canadian Radio Shacks. Breaking completely out of the Kiosk is possible with the following easy steps. (As a side note: I just want to say that none of these tricks apply to the Montreal Radio Shack in the Grosvenor Mall because the Kiosk is disconnected from the internet and really successful if you ask for help, and if you're younger than the person helping you, you're under strict observation.)

- 1) Go back to the home page of the Kiosk program. There are utility-like icons that can help you do this on the upper left-hand corner of the screen.
- 2) Click on the "Computers" tab. (These are numerous tabs on the home page that allow you to access different parts of the site. The "Computers" tab is the second from the left.)
- 3) Scroll down and watch the left hand side for "Microsoft" in bold type.

- 4) Click on "Microsoft".

This is where the inconsistency steps in. On Kiosk v5.0 and Kiosk v6.0 I've seen what I'd expect to describe the home on Kiosk v5.2.

On the window that pops up when you click the word "Microsoft", there will be a "Help" tab on the upper right-hand corner of the pop-up screen. If you click it, there are two choices in the drop-down menu: "Error" and "Exit All". "Exit" simply exits the new screen, address "Exit All" exits the

entire Kiosk program. Again, this has worked for me repeatedly, so be aware that if you try it might not work.

Other Nice Things

Screen saver passwords are big deals at Radio Shack. Usually many or all of the computers on display will be screen saver password protected. I've now had a couple of things: If you come in and ask for assistance with buying a computer, the screen saver password comes off immediately. Just say you're going to buy a record, see how good the system is and all that, and the computer is yours. If you happen to catch a glimpse of what the person was typing, all the better for you, seeing as 90 percent of the time has screen saver passwords are the same. Or you can ask for assistance. Have them make the screen saver password off, insert the disk you're creating, brought from home, and turn over the passwords on the machine.

If the computer is on, and there is no screen saver password applied or if there's no screen saver enabled and the Desktop is starting you in the face but you still can't seem to get the mouse or keyboard buttons to work, it's because the mouse and keyboard aren't plugged in. So search around

on back and plug them in.

More Not Related To This Article But Still Necessary

I figure since the majority of this article has to do with Canada in one way or another, I might as well comment on Vancouver Chronicle's article in 1987: "Tel-Me: Easy and Abuse" You can't dial Tel-Me directly from Canada (pay/press), but you can dial through the operator. Unfortunately Canada services, like Wink-Up Call, don't work outside of the United States. Oddly enough, I dialled Tel-Me just directly when I was in Toronto, however (I thought) was a different story. I couldn't dial directly nor through an operator. I got an error message that told me to call a non toll free number that would search a Canadian Toll-Me: 408-678-0310. (Oh, I don't know if it was me or the line time. But I couldn't get Phone Booth to work either.)

Header: Stacey_Moreno_Pope_Lawson@Sunbelt.net and the rest of the 24 2660 crew: Wendy_Painfant@Bellnet.com, Jody_Creech@Bellnet.com, and a very special thanks to Kevin Bland who helped for every email I've written.

Building a Floppy-Based Router

by ed@netjunkie.com

The "broadsheet" assigned has gone, and many innocent small office/home-office subscribers (such as IBM, eMachines, RoadRunner, Qwest, and Telus). The problem with most of these services is the limit on IP addresses given to each customer. Instead of looking out an addition to your monthly bill for more IPs, why not build a simple router?

Hardware

You'll need at least a 386 computer with at least 1MB of RAM. You'll also need two Ethernet cards. For compatibility issues, the floppy, LAN, or NEKB cards. If you use ISA cards, be sure to record the ID and IRQ addresses. If you don't know them, visit the manufacturer's home page (most offer MS-DOS tools for installing the NICs). For convenience, use the standard Win-1020EQ. Your convenience is the architect's convenience. You can find "Win1020EQ" for the following: 386-w/16MB, 124-rb KISM, 144-rb floppy drive, 2 NICs, keyboard, any video card and sound. I also recommend a slot can be kept at a dedicated in the PC. To connect your internal machines to the router, attach a hub or switch to the router's internal NIC.

Software

You'll need a Windows PC with a floppy drive and Internet access. Get <http://www.cisco.com/>, self-installation and download the Catalyst Linux Disk Creation when you run the program, you'll go through a series of steps to setup the software. You

can change the LAN configuration or it is (unless you prefer) to change the router address. The next step is to setup a route for RouterGuard or whatever your ISP is. The next step is for the router's Internet connection. The default settings should work for most ISPs. Next, you can enable DHCP services on the router so that machines on the internal network will be configured automatically through the router. The next step is setting CISCOSDHCP. You will be using the setup to default check their settings. After that, insert a floppy disk and create the boot disk.

Router Setup

Now for the fun part. Boot up the PC with the Catalyst disk and when prompted to begin, use "y" with no password. A configuration menu will pop up. First, change the router password. Next, set your interface type (change the router IP address to the outside world but it's recommended to use the type type this line at the computer prompt to only allow Internet IP access on port 20, ip address: ip@ip.cisco.com 23 1-6551 7. Next.

If you want to run a web server behind the router, you can use port forwarding.

www.cisco.com/ (Cisco) or www.mikrotik.com/ (Mikrotik) or <http://www.redhat.com/> (Redhat). Now you're all set! Documentation and FAQs are available at www.cisco.com/

Build a WOODBEM Computer

by **EllieLSR**

Remember being in workshop making cutting boards for your parents and little shelves for your room? Or perhaps you're still in workshop, or maybe you're a carpenter and work with wood for a living. Well, it's time for something new. It is now time to present the wooden computer.

The computer I'm on right now is made out of wood. All my friends thought I was crazy for ever trying to make a computer out of wood.

Type of computer: Think of a tower-based computer with three 5.25 drives and two 3.5 drives. You could easily add more drive bays or take some away, but if you wanted to do that, you'd have to measure everything.

Type of wood: The type of wood I used was 1/2 inch plywood. The reason was because it's very strong and hard to bend. So use any kind of plywood 1/2 to 2/3 of an inch. Any bigger and the computer would weigh more than you'd expect.

The frame: The computer will have five sides (the back being left open, mainly for ventilation). The front piece is 9.5 x 18 inches. The left side is 20 x 18 inches. The right side is 20 x 19 inches. And the top and bottom pieces are 10 x 20 inches. Totaling that up is 1111 square inches. With these dimensions, saw out the five pieces.

The inside: This is what you want to work on first, basically building from the inside out. As said before, you're going to be making a computer with three 5.25 drives and two 3.5 drives. The 5.25 drives will need three rectangles with measurements of 6 x 8 inches. Along with that will be one more piece that's 7.5 x 8 inches. Lay the 7.5 x 8 inch piece down and mark it with a pencil dividing it into three equal sections 2.5 inches apart. Take each 6 x 8 inch piece and place them on these marks,

therefore making the bays. See Figure 1a. Glue and nail (use small nails) these four pieces and set it aside to dry. Now the 3.5 drives are basically the same thing but with different measurements. This time, you need two rectangles with measurements of 4 x 6 inches and another piece that's 3 x 6 inches with equal sections 1.5 inches apart. See Figure 1b. Glue and nail these three pieces.

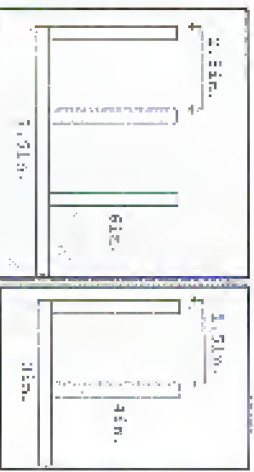


Figure 1a

Figure 1b

More inside: Now that the front drive bays are done (or drying), it's time to make the hard drive rack. This assembly uses the same basic concept as the drive bays. The hard drive rack will hold three hard drives, so you will need three rectangles with measurements of 4.5 x 6.5 inches and another one with measurements of 5.25 x 6.5 inches. Lay the three 4.5 x 6.5 inch pieces on the biggest piece and place them 1.25 inches apart. See Figure 2. This rack will be located in the lower left corner of the computer.



Figure 2

The front: For the front piece, you're going to need to saw out two rectangles. This is for the 5.25 and 3.5 drive bays. The big rectangle is 6.5 x 7.5 inches and the small one is 4.5 x 3 inches. To do this, use the drill press to make six holes (for turning points for the saber saw). Then, take the saber saw and saw along the edges meeting each hole until the figure is released from the rest of the front piece. See Figure 3. Be careful that the left edge (the 1/4 inch) does not break. Once it's put together it won't be vulnerable to breaking. Sand to flatten and smooth the sides.

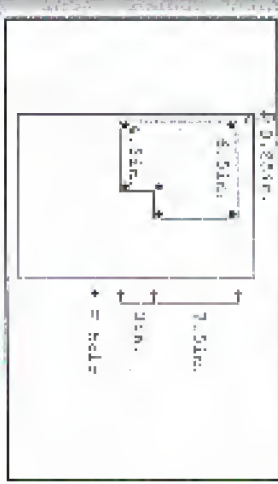


Figure 3

The left side: All you need to do to this piece is make a half inch (or however wide your wood is) dado. The dado will be along the shorter side of the left side. See Figure 4.

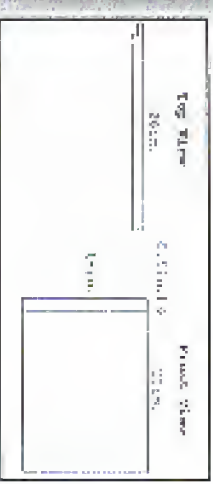


Figure 4

The front outside: This is the beginning of putting the computer together. Now you should have two assemblies of drive bays (the three 5.25 and two 3.5). The two assemblies should fit firmly in the front piece. Take the 3.5 assembly and place it on the front piece so that the back end sticks out. Don't glue yet. This is where it

gets tricky so you may need another person to help you. With the assembly there, take the left side piece and match the dadoed part along the left side (the 1/4 inch) of the front piece. Have the nail gun ready. Glue the 3.5 assembly along the two left edges touching the front and left side pieces. The bottom edge touching the front piece, and the right edge also touching the front piece. Holding that there, take the nail gun and point it from the left side piece nailing the left side piece into the front piece and through the bottom of the 3.5 assembly. See Point 1 on Figure 5. Nail at Point 2 and at the ends of the assembly (to even out the pressure). Let it sit for the glue to dry. Use the same process for the 5.25 assembly nailing Points 3, 4, 5, and the assembly's ends. Then go ahead and finish off nailing the left side piece to the front piece.

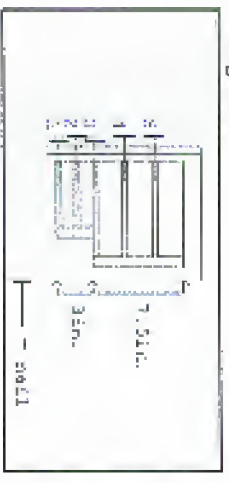


Figure 5

The hard drive rack installation: Looking at Figure 6, the hard drive rack is touching the front piece and the left side piece (the view is looking on the inside of the computer on the opposite side of the front piece where the left side piece is now on the right side). The first thing to do is to attach the bottom piece to the front and left side pieces. This way the hard drive rack has something to sit on (and other inside pieces as well). Glue and nail the hard drive rack to the front, bottom, and left side pieces. Proceed to attaching the top piece as well.



Figure 6

The door and hinge: This is where the nail

piece comes in - the right side piece. This piece is taller than the left side piece and that is because it's the door for the computer (the computer has to have access to the inside one way or another). What you need is a 1/2 inch piano hinge (about an inch wide), and a whole lot of screws to insert this hinge. The chances of finding a piano hinge that's exactly 1/2 inches are very rare, so just get the next size up and saw it down to size with a hacksaw. Have the hinge's turning point face towards you so that when you attach the right side piece it will swing out towards you. With a drill and a 1/8 inch bit, make small holes aligned with the holes of the hinge and the computer. This will make the screws go in easier. Assemble this together and then go ahead and sand lacquer, just stain (optionally) the computer.

Motor Housing: At a local Yard Birds or another home improvement store, buy metal shears. This is for putting on the inside of the computer. The reason is to keep it cool, keep the wood from warping, and to have a metal base for the motherboard (my computer has been running for eight months and not one problem has occurred in the fact that it's inside out of wood). Don't try to buy metal sheets that fit the exact size of the walls on the inside. Just buy really big ones and a pair of metal-cutting scissors. The best way to put these on is to screw each corner onto the wood base of each wall. Cutting metal is not fun (and not to mention painful when not careful). This is in fact the worst part of making the computer. You may also want to put metal lining underneath your hard drive.

Computer components: The computer is designed to put the motherboard on the left side piece. Put it on however you want. Make sure you have plastic feet on the motherboard so that it doesn't touch the metal when you screw it on. The power supply can pretty much go anywhere on the base of the computer. I used the metal sheets to hold it in place by forming a

shape around the power supply. You could just as easily make a box that the power supply sits in as well. All the other components (CD-ROMs, floppy drives, etc.) have their own place to go. You may be thinking about how these other components are going to stay where they are when inserting floppy disks and such. The solution is to make many small rectangular cubes and nail them (one nail for each, centered on the cube) behind each component so that the components will hit it when jiggled upon from the front. Make it so that they can rotate for when you need to remove/discard components. See Figure 7. Hook everything up and it's ready to be started for the first time.

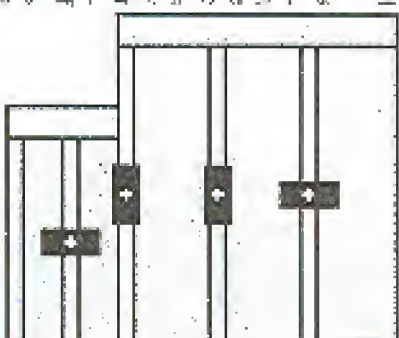


Figure 7

Swapping the system: On your motherboard information booklet (or something of that nature), there should be a diagram that shows where you need to hook up the power switch. If you were like me and could not find a

power switch that fit the motherboard output, then take a close look at the diagram in the booklet. Hopefully, it tells you what prongs function what. Oh mine, it pointed to two parallel prongs that were labeled "PWRRT" (power button). Instead of hesitating over the fact that I couldn't find a power switch, what I did was take two long wires and wrap each one around its own prong (the kind of wires I used were from an electronic kit I got from Radio Shack - they're single-stranded and vary thin). Then all I did was much the other two ends together and listened to it part. You may want to buy a small switch for the wires to make it easier to start the system (Radio Shack has tons of these).



by Mark 12085
This article is in no way condoning the practice of illegal radio broadcasting. Radio is your own risk.....

For me, the fun of building your radio is that this article alone will not get you on your merry way to the airwaves. Radio, especially unlicensed low-power transmissions, is a complicated subject. Please do some research and plan wisely. The airwaves are for everyone to use, so don't abuse them.

Are Ye Maley?

The phrase "praise radio" seems to strike fear in the public. Sexton like pirate radio has always had a connotation of brute guerrilla seizing national airwaves and replacing it with propaganda. That couldn't be any further from the truth. Pirate radio is simply transmitting radio frequency energy through the air at low power - minuscule compared to the licensed stations spewing kilowatts of power from antenna towers. Unlike strictly the Federal Communications Commission seems to believe that they own our air, disbeliever anyone who does not have a spare \$100,000 floating around to go through the licensing process must be ridiculed. You had for them, because an is fore.

A Heart of Gold

The heart of any station is the transmitter. FM over the air, broadcast, exciter - they are all the same thing, just different dimes. Basically, there are two types of transmitters available: VCO and PLL. VCO, voltage controlled oscillator, is just that: an RF oscillator controlled by the voltage. While cheaper (around \$30 for one watt model), they will drift off the frequency it is set to transmit as its voltage, temperature, and settings change. That means if you set it to broadcast 100.0 MHz, you may find it transmitting at 101.2 an hour later. PLL (phase-locked loop) transmitters, while a bit more costly (roughly \$40 more than

VCO), are a much better deal. They are controlled via microcontrollers, which means they will never drift off frequency.

Most transmitters come in two types: mono or stereo. While stereo transmitters are slightly more expensive, it is still more economical and space-saving versus adding a stereo encoder to a mono setup. Think before you buy about which setup would be right for you.

While great for broadcasting around the house, simple transistor or FM104 chip based transmitters are not sufficient for professional grade work. They were designed specifically for short-distance broadcasting, so let them do their appropriate job.

Transmitters can be purchased ready built or in kit form. Kits usually include the PCB, parts and instructions. Do not skimp; a kit costs you are only experimenting with soldering SMD parts and RF emitting devices. PCS Electronics and NRG Kits both carry high-quality transmitters of varied output.

Power to the People

A transmitter would be useless if it had nothing to run on. Most transmitters require a power source. PCS Electronics makes a vintage car radio transmitter which plugs into a the USA or FCI slot, so that would be an exception. A plug-in "wall-wart" transformer is not a sufficient power source. Remember, the quality of the power detection the quality of the transmission. You will need a well regulated, well filtered power supply, like the ones designed for CB and Ham radios. RadioShack sells one for about \$40. A 12 volt car battery will also work. Just be sure to keep it maintained.

Spread the Love

Although it may not seem like it, the antenna is the most vital part of a station. A one piece antenna can easily supplant a



RADIO LIMBO

25 wall station with a coax-cable. The coax and most coaxial antennas in the dipole, which is basically two wires going out in opposite directions out according to the frequency you are transmitting on. There are hosts of other great antennas that are easy to build such as the ground plane, J-pole, slim jim, and owl and owl. I will not go into detail about building the perfect antenna because there are tons of sites devoted only to antennas (check out the list later on) and heck's on the same subject.

Most antennas are either omnidirectional or directional. Omnidirectional antennas such as the dipole and 5/8 ground plane transmit in all directions. Directional antennas on the other hand sweep RF in one direction.

While we're on the topic of antennas, don't forget to invest in a good SWR (standing wave ratio) meter. The SWR measurement is probably the single most important factor in determining the effectiveness of your antenna. Although cheap SWR meters made for CB radios will work for our setup, they will be far from accurate. Try to aim for an SWR of 2:1 or lower. An SWR reading of 1.5:1 would be theoretically perfect, but realistically impossible.

Putting it All Together

Connecting everything together is not quite as simple as a length of RadioShack coax. Firstly, the impedance of the coax has to match the parts you are connecting them to, usually either 50 ohm or 75 ohm. Secondly, cheap coax results in cheap connections - time loss. Line loss is literally losing your transmitter energy out of the cable as heat. Line loss increases as the length of the coax increases. Therefore, use as short of a length of coax as you can. Also, use high quality, well shielded cables, such as Belden cable.

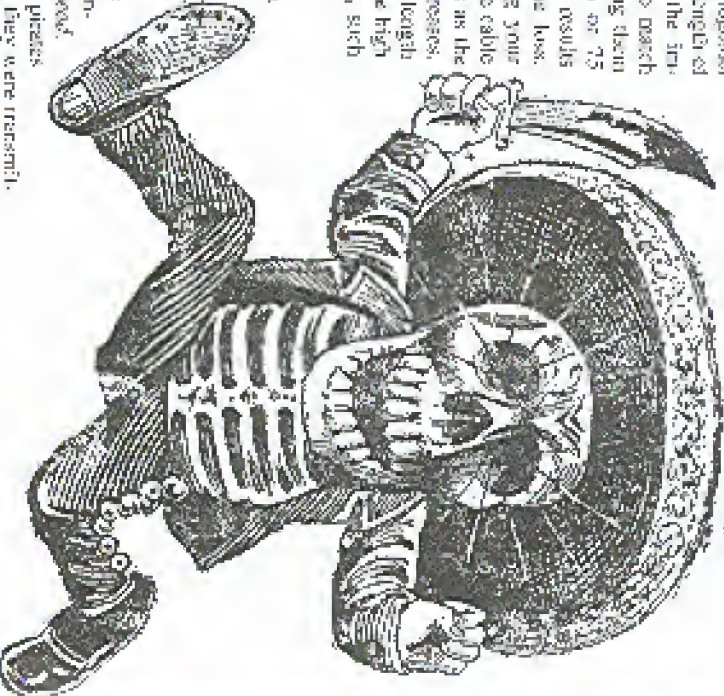
Staying Low

You don't have to be a genius to figure out the fact that an increased radio broadcasting at more than about 10 milliwatts is illegal. And yes, they use ground your license while you are transmitting. Prevention is the key. Use your head! Thirty percent of all the greatest busted were caught because they were transmitting

ing crap in other frequencies due to a sloppy setup. Don't forget, the antenna base is directly above the FM band. Filters thought or built are strongly recommended to block out harmonics you may be transmitting. Stop transmitting if the FCC contacts you or if you see any suspicious cars circling the neighborhood. If your budget allows, look into a satelliteware link for your station. A microwave link allows you to operate your transmitter from a distance varying from a couple of hundred yards to miles. Now it's up to you to do your own research on what would be best for your setup. The sites listed below, not only sell high quality transmitters but contain loads of free information on your setup. You might also want to check out some books from the Amateur Radio Relay League (ARRL). Be smart and happy transmitting!

Reference

- ARRL Handbook for Radio Amateurs
- ARRL Amateur Handbook
- <http://www.ngsls.com> - Lots of useful info, transmitters, traps, etc.
- <http://www.rsmselectronics.com> - High quality products if you have a few bucks.....
- Crossed* by *TK Jones, Zeev, FongQan, MFA, Frenshel, APCan, and Z609.*



Secrets of Rogers @Home

by Arthur Rose
arose@home.com

I used to work for Rogers @Home as a first-level and second-level supervisor and now I'd like to spread the joy:

When you call Rogers @Home support, you're not getting Rogers at all. You're getting an outsourced company called Cameray's, located in Oklawaha, Florida. The first thing they will ask you is your telephone number starting with the area code. They type this into the Citrix client which brings up your info. They can also search by your name or address, but the phone number is the preferred way. They will most likely ask you for your postal code for ID verification (denied as a symptom of a scammer). Once they have your account, it becomes locked so nobody else can use it. They will then help you with your problems.

From here, they can do many things: Change your password, schedule a "Trunk Roll" for having a cable guy come to you (gains, out-sourced to MiscoTel) give you credit on your account, etc. Most default passwords are "password", "changeit", "12345678", or "newnormal". Notice they're all eight characters? The Citrix client can easily handle every eight character for your password.

If you ask to speak to a supervisor they will pass you off to a second-level agent. You will never speak to a real supervisor because they just hand out paychecks and can't do anything anyway. The Operational Assistant (OAA) is told to "keep the customers..." and will do almost anything to keep your service. Feel free to make up some glowing problem and tell them you want credit on your account for the trouble you've gone through (that's what blah, blah! "resent free month of service credited to your account."

The tools used are all web-based and, until recently, could be accessed from anyone on the @Home network (24.112.x.x 2443.v.v) using their proxy server. They range from e-mailing you

how many people are down on a subject to answering the CRC issues on your mailer. Bug stuff!

Escalated tickets are, actually, re-escalated. Usually to Toronto (York Mills) and, on the even your problem is larger than the Titanic, CallCenter. It's at this point the tools have no control over what happens.

Although they shouldn't know how, first-level agents have the ability to hit the root switch and shut you down or bring you back online. Ofc, I have done it and, yes, it is a good symphony!

Most people ask me about removing the handswitch cap on the modems. Well, there are two modems used by @Home: Lan City and Terayon. They're plugging out the Lan City because they're running out of IP addresses and the reason uses the Electronic Serial Number (ESN) to get the BODIP information. If you have a Lan City modem (the one that looks like a car stereo application), the possibility to remove the cap is there. You must refer to post 1001 of your Lan City modem (the IP should be on that yellow piece of paper) and login. Support agents are never told about this. General hardware attacks should get you in. Once you're in, find the MIBS (Checksum and delete it.

This can also be done on the Terayon modems, but you're heading (probably at jet time) at cracking the @Home (BOCIP) server, finding your specific IPN (yellow paper?) and changing the cap then. Again, the Network Security/Fraud (NSIF) department is watching everything those guys do (more on their 4013 and I do not recommend trying it unless your Kluge Tru is gone).

That's all for now. I know this article is kinda short but I thought some info is better than none. If you want more of the 411 on their support centers or the technology, hit @HomeNetworkTopology.asp any one'll drop me a line. Remember to back with interest!

by Boerida

Believe you all start complaining. I know that in the 90's and early 00's about a million calls were being spread around BBS's about VAMIS (voice mailbox) and answering machine hacking. This article is, of course, more recent and contains more information about certain brands of answering machines to aid you in getting into an answering machine (provided you know what brand of machine it is). Also, it focuses more on three digit passwords as well as two digit ones. If you don't know what brand the machine is, this article will also contain a generic overview of gaining remote access to answering machines.

Why would you want to hack an answering machine? There are a number of reasons such as spying on people (such as your girlfriends/boyfriends/wife/husband) or just for fun and games (pranking or changing the outgoing message of OGM). Once you are into an answering machine you can literally make messages and/or change the OGM to say whatever you want it to. You decide for yourself why you would want to hack an answering machine.

Most answering machines require you to enter the password while the OGM is being played. However, some require you to hit a certain key (such as "0", "9", or "4") after which it will say "please enter your password" or perform a series of beeps. A few answering machines require the password after the OGM has finished and the help beep has been played. Some answering machines will disconnect you after you enter a certain number of digits (in which case, you'll need to call back and start again). Case in point, the Panasonic made in the early 90's had maybe six-covers? require a two digit password during the OGM and will disconnect you after six digits have been entered - if they don't contain the password sequence. If you think you are dealing with an old answering machine that

uses a two digit password (such as early old Panasonic and AT&T answering machines), there is an easy way to check if you or another digit machine that is simply listening for the correct sequence of numbers. Simply call it and then enter the number during the OGM (or after you hit the initialization key to get the machine to listen for a password).

00102050405006070809112131415161718192
204252627282931235363738394516171819
95565758596067686977879889950

The above number works on every two digit password (provided it is like most answering machines that don't send the digits in groups of one or three but rather just listen for the right sequence). It works because it contains every possible two digit password. This is very effective. If you get cut off or don't get it all entered during the OGM, call back and start with the number you got cut off on.

However, in today's day and age, most answering machines use three digit passwords. Despite the digit increase, these passwords are usually an easy (if not easier) to hack. The reason for this is because the occupying owner of the customer is able to remember his/her password so it will be easier for them to access their messages away from home without remembering some random three digit number the company came up with. These default passwords are supposed to only be temporary (the customer is supposed to change it shortly after they purchase the machine). This is not usually the case, however, because most answering machine owners:

- 1) don't even know it's possible to remotely access their answering machine.
- 2) don't think they are vulnerable to attack.
- 3) are too lazy to change their password.

Also, after a power outage, most machines reset to the default password and answering machine owners will usually forget to change their password back or get tired of and just leave the default password enabled. For this

reason, you may have better luck right after a power outage. Most default three digit passwords are either the same number three times in a row ("888", "111", ...) or some combination (not ones) of those digits in numerical order ("123", "456", "789"). BellSouth's answering machines use the same digit three times in a row (usually "888").

Is there one big number I can enter that will cover all three digit possibilities. Like the number for the own digit passwords? The answer is yes. However, it is a lot longer. It's 1005 digits long and covers every possible three digit combination (three passwords are in the number list). 988 889 898. I couldn't stop those three weeks from being repeated without screwing up the entire number. If someone comes up with a better number that contains all three digit possibilities without repeating a three digit sequence throughout, submit it:

6001002003004005006007008090011012013
0140150160170180190202020202020202020
202020202020202020202020202020202020
042043044045046047048049051052053054
0550560570580590610620630640650660670
6806907107207307407507607707807908108
2083084085086087088089091092093094095
09609709809911121314151617181919
1221231241251261271281291313131313131
4613713813914014141414141414141414141
153154155156157158159160161616161616
16716816917172173174175176177178179180
831841851861871881891919219319419519619
71981992222222222222222222222222222
525627272828282828282828282828282828
254455256257258259262626262626262626
69273274757677777777777777777777777
72828282828282828282828282828282828
633733833934434534634734834935353535
35735835936363636363636363636363636
775783784785786787788789794795796799
73083308444444444444444444444444444
946544667468469475476477478479485486
487488489495496497498499555555555555
566567568569575877578795885885885895
9659759859960676868696776786796876886
886976986997778779787897987998889988
889900

The number may be intimidating at first, but think of it this way:

- 1) you would normally have to enter 1000 passwords to cover all possible combinations. A combination is three digits long, so that is 3300 digits. This number cuts the number of digits you would normally have to enter by almost two thirds.
- 2) you only need to use this number as a last resort. If the answering machine doesn't accept the normal default passwords mentioned above (I would venture to say at least 80-90 percent do).
- 3) you will most likely come across the three digit combination before you have entered all 1005 digits.

Some BellSouth answering machines keep altering every digit that is entered. In this case, you must slow down so that you get one beep per number and the answering machine doesn't enter any. Also, if you get cut off while entering this number just call back and start one number before the last one you entered.

Once you have gotten into the machine, BellSouth machines, along with most others, have a recording that tells you what numbers perform certain commands. Another way you can get the password to BellSouth machines (and others) is if you are at that person's house (such as your friend or girlfriend), simply press the "code" button when no one is looking. The LCD screen that usually displays the number of messages recorded on the machine will flash the three digit passwords for that machine. Another good way to get into answering machines (if you know what brand/model they use) is to go to a place like Wal-Mart or Radio Shack and ask to see a user's manual on them.

This works only if they have the model in stock. You might also want to tell them you bought the machine and how your user manual.

The vulnerabilities mentioned in this article should not be confined to individual machines. Company answering machines (we'll let you decide what kind of company) are just as vulnerable.

Greene, Steven, Mega Jinx, Wednesday, and Nick

Dear 2600:

Every time you do it, it's like you're saying "I like the press... of the crowd (the one that had been blacked by...)

Andrew Hest

The question we get our own back issue can be taken over by more... Andrew Hest

Dear 2600:

We have a 1985 JC Penney color television that we have been unsuccessful in finding a "universe" to... Politics

Dear 2600:

I have been reading your magazine for several years now and find it to be generally interesting and useful in my profession... Politics

I just became really bothered at what appeared to be your defense of the WTO rules and dismantling... Politics

I also want to address some of your comments in response to letters in the 183 issue... Politics

The way we do things here in the United States is not... Politics

you, but never here, and never will be perfect. We may... Politics

6. Quarterly

Collect or release and then primarily devote it to... Politics

As a reminder to those that believe in the U.S. as... Politics

As a reminder to those that believe in the U.S. as... Politics

To prevent the refusal that we have the best... Politics

regulation... This is a classic case of... Politics

Dear 2600:

The Libertarian Party is not just an... Politics

Libertarian proclaim that "massive corporations" can... Politics

It is the Madisonian ideal, such as yourself who... Politics

American often reading abroad

As you know, the byword of... Politics

Dear 2600:

In the August 11, 2001 issue of BusinessWeek, the CEO of a small ISP in North Carolina says that Verizon... Politics

Why don't you come with us? Manning, why don't you... Politics

certainly get a DSL line installed with a non-Verizon ISP... Politics

Now for the next. I want to see the following... Politics

Dear 2600:

First, congratulations for the best magazine on... Politics

Report

These people have had a problem for some time. They... Politics

Morale Boost

Dear 2600:

I picked up my first issue (183) of Cooper's in MS... Politics

Dear 2600:

I was amazed from August's correction to see... Politics

Dear 2600:

I have been reading 2600 for since I remember... Politics

Dear 2600:

In the A check status on how to adjust the settings on a Quest DSL modem that is installed in the house of Quest's residential DSL subscribers.

In the same status box on a Quest DSL modem, I see the parameters of the modem to up the bandwidth. This won't work. Oh, you can change the TSP number to what ever you want, but what's the DSL ADSL sync at the CO in the same settings you want to get that speed increase you're looking for. In fact, if you change your home user settings to something other than those set at the DSL AM, you possibly wouldn't even get SYNC at all, thereby dropping your connection entirely.

Now then, knowing this I guess you could use this information to drop someone's connection for a while if you wanted to be mean and you knew the right IP, but it wouldn't help you if you wanted to, say, get a 100Kbps line that you yourself to 8K. To do this you could have access to the DSL AM as well.

Anonymous

In 303 Scanner Check's linked above "Upgrading Intelligent Peripherals" such as the HP JetDirect Network Printer (Lecture). Also wanting the open ports to be used instead to connect to the device and gain access. It should be noted that most of these services now support HTML, so now you can go. So it's a much easier to just open a web browser and type in the address. There you can set any thing you want. Make sure you don't see a password in your device. I know I don't, or at least didn't until now. So you will probably have no trouble. You'll see with my experience.

Dear 2600:

The "Philly Key" that Intellectual is asking about in 183's refers to the Dallas Semiconductor Division. This technology was discussed in the "Flash Memory Primer" article here in the Winter 1998 issue. (An updated version is available at <http://www.semicond.com>.) There are various applications for this device, from non-volatile, authentication data storage, such as it sounds like. Even such uses as using the device to indicate whether or possible child-protection for identification and social network protection.

More recent issues include security relating to the US9881 device. (mpgware.westlink.com/~semicond/usa9881.html) (801-1-910) in which it is possible to perform a short-range attack against the time-sticky password protecting data within the device. All with an investment of \$4,000, samples, data sheets, source code, development kit, and on the Amazon and I have the data and technology can be found at <http://www.westlink.com/~semicond/westlink.com>

Klugman
Boston

Issue 2600:
In 183, Increased asks about the "Philly Key". It seems like the general answer is a Dallas Semiconductor

author "Robert". Lots of information is available on the location at www.dallas.com, including technical details. The A plus are included. You can buy one of their key interfaces for under \$50 that enables you to create your own hardware security system using the familiar Java programming language. You'll also need one of their programming boards that includes an ethernet interface (coming October), but the whole package probably won't set you back more than \$170.

It's unclear if you could, for example, get protection with this hardware and some cleverly placed software so that in order to infect the Java, you must first "finger" the Java site.

Guest For Knowledge **Quadradius**

I was recently engaged in a search for a program that could connect MS Word files to HTML format and format that they were either compatible or at least substantially had to find. I thought this was rather surprising and had to look for some sort of documentation for the MS Word files source code so that I could maybe write such a program myself. I was as a consequence faced with the fact that Microsoft keeps their staff super secret and that such documentation is often highly unavailable. I am wondering if this source code can be found anywhere at all, considering how many times Microsoft has been hacked.

Old School Perspective
Timmy Keesyuk

As an old school 25-year-old user of the VMS, Unix, and C programming languages, and with 15Ks to grab DOS 6.02 all begin to seem and pass away. The following is a detailed list of things I remember from the whole DOS 6.02 era, and how they fit in to the old days it was the best. I hope someone might find this useful. I was as a consequence faced with the fact that Microsoft keeps their staff super secret and that such documentation is often highly unavailable. I am wondering if this source code can be found anywhere at all, considering how many times Microsoft has been hacked.

Final words of advice from an old school guy - High to you, and a nice holiday Christmas, and remember to the EIT!

Prismuser

I just finished watching a DVD rip of the "Reasonable" film and I just have to say that I am happy that the thing has not made it to the shelves here in the US. That is a very bad parody of "Marsch, get it done" and it's a very good parody of "Marsch, get it done". I think I speak for everyone when I say "Freedom of the Press" needs to be preserved to all things straight. I along with

others cannot wait for the release and was wondering if you had gotten any further with it.

PD

I'd like to know if you have any plans for it in the near future. I've been reading 2600 for quite some time now and I love the magazine. It makes me feel like you may be able to help me with the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Hacker Pedestals
Dear 2600:

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chicks

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Questions
Dear 2600:

I have a question about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Prismuser

I have a question about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Prismuser

I have a question about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Prismuser

I have a question about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

answered. The already gained the domain to 2600. If you have any objections in this, please respond and I will remove the forward.

Hole Nine

No objection the support. But it's completely unacceptable. I've been reading 2600 for quite some time now and I love the magazine. It makes me feel like you may be able to help me with the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Dear 2600:

I've been reading 2600 for quite some time now and I love the magazine. It makes me feel like you may be able to help me with the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Zach

I've been reading 2600 for quite some time now and I love the magazine. It makes me feel like you may be able to help me with the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Dear 2600:

I've been reading 2600 for quite some time now and I love the magazine. It makes me feel like you may be able to help me with the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Kirkblaine

I've been reading 2600 for quite some time now and I love the magazine. It makes me feel like you may be able to help me with the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Prismuser

I've been reading 2600 for quite some time now and I love the magazine. It makes me feel like you may be able to help me with the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Dear 2600:

I've been reading 2600 for quite some time now and I love the magazine. It makes me feel like you may be able to help me with the book. I have a lot of ideas about the book and I think it would be a great idea to have a book about the book.

Continued on page 49

hacking the highway

by mearonline

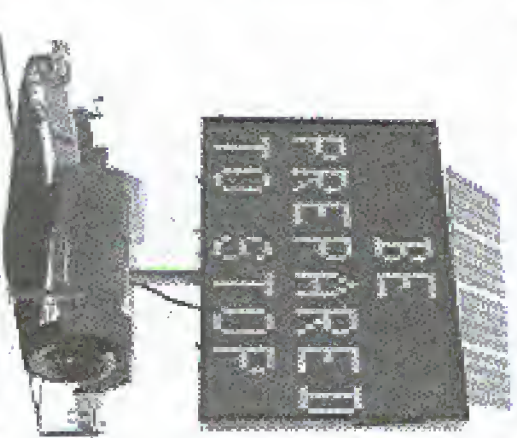
I decided to write this because many people have often wondered if this sort of thing was possible and have experienced disbelief upon viewing pictures of modified highway signs reading things like "Free Kevlar" - writing it off as the work of Photoshop or the GIMP at the hands of someone with too much free time. Hopefully this article will give you insight as to the way simple systems operate and encourage you to go out and explore similar systems such as electronic billboards.

Introduction

The unit this article was written about is a fairly commonplace highway hazard information sign constructed by ADDCO and purchased by pretty much every state and county highway commission in the US. They are taller mounted and can be powered by either portable diesel generators or solar panels mounted on top of the display screen with batteries for nighttime usage. The display screen is a three line by eight character display changed by flipping cards ("pixels") that are yellow/red/green for "on" or black for "off". A night a pseudo-backlight system can be turned on by switch or by photo cell resistor. It is in fact not a backlight, but two orange LEDs at the bottom and top of the sign that illuminate the reflective cards causing them to glow. As the access panels go, there are three: Two are at the front of the unit (side facing traffic) or along the sides. These house batteries and are usually locked to prevent people from stealing the batteries. The other access panel is at the back of the unit in the center and is seldom locked. This panel houses the control panel, various switches, and other hardware.

Getting Started

Open the rear access panel and look inside. You will most likely see a black panel with an old school IBM AT style keyboard selected to it. On the right of the panel will be a silver battery disconnect switch for changing the battery. Below the panel will be a battery status gauge measured in amperes. On top of the



panel will be the controller micro controller switch. To the left, two three position toggle: a reset lower/off/raise switch and a backlight on/off/auto switch. The panel itself consists of a non-backlight LCD screen that displays eight lines by 48 characters. The keyboard itself appears to be standard with the exception that instead of an AT plug, it plugs into the panel via an RJ11 jack in the style of older WYSIE dumb terminals. Due to a lack of insulation for about one inch between the RJ11 plug, I am convinced to believe that the keyboard was at one time a standard keyboard, but the AT plug was chopped off and an RJ11 plug was crimped on in place.

The System

The display shows a preview of the six frames in rotation and invites you to press "0" for the main menu. After searching the main menu you will have four paths:

1. Turn off display.
2. Speed up rotation.
3. Slow down rotation.
4. More options (password required).

The password in my case was "1X211". It was found after attempting to guess for about ten minutes, then glancing at the inside of the door where "Password: 1X211" was scrawled

in black sharpie marker. We tried this password on four other units where no password was written on the door and it worked on all occasions. Our guess? "1X211" stands for Department of Transportation 1. After reaching the "more options" menu, you have six choices:

1. Change current rotation.
2. Change/monthly rotation.
3. Change/monthly frames.
4. Change time.
5. Change time rotation.
6. Other options.

The only options you'll wish to play with (yes, it will allow you to change the system password, but please do not do this - it's not very nice) are "change/monthly rotations" and "change/monthly frames". Say you wish to replace the current message with one of your choosing. You would do the following:

First, select "change/monthly frames". It will give you a blank 8x3 matrix:

```
[ ] [ ] [ ]  
[ ] [ ] [ ]  
[ ] [ ] [ ]
```

Use your arrow keys to move about. To delete a character, use space on it or when space is on. Press enter when you are finished.

After you press enter, it will ask you if you wish to save your frame. Press enter to save it. It will then prompt you for the slot you wish to save it in. Slots 1-185 are preprogrammed with different useful things like "road closed" and "detour". You can overwrite 1-185, but it will undoubtedly inconvenience someone at a later date so please don't do it. I usually start at 240 and go up from there because in most cases transit people tend to start at 200 with their own messages (region specific things like "all black road and black") and go up. From frames is plenty of space for them. After you have created and saved all the frames you'll need (keep in mind you can only use six frames per rotation), drop down one more level by pressing enter, then select "change/monthly rotation". At this screen, you will be presented with:

```
[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]  
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[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]  
[ ] [ ] [ ] [ ] [ ] [ ]
```

It will start by asking you which frame you wish to modify. Press 1 followed by enter. It will then prompt you for the frame number you wish to insert. Type in your frame number (240) and press enter. The first cell will then be filled by the contents of the frame number you gave it. It will then again ask you which frame you wish to modify. Press 2, then enter, and so on and so on. When you are done, and it asks you what frame you wish to modify, press enter. The system will then ask you if you'd like to save your rotation. There are 25 possible slots you can fill. Please use slot 25, as other slots may be filled with legitimate frames. After this is completed, drop down to the main menu and choose "select rotation". It will then ask you which rotation you'd like to use. Tell it 25 and press enter. It will then say "press 'Y' to start". After you press "Y", your message will begin to flash across the front of the big sign and it will say "press M for manual", and display the frames in the rotation you're currently using.

What To Do If You Can't

Guess The Password

The system default password, in any case "10011", was housed in a ROM chip inside the unit. After successfully changing the system password, we attempted to restore the unit to its default password by turning off the unit and disconnecting the battery terminals via switch. This attempt succeeded. If the system default password is in fact not "10011", then I wish you good luck.

Cover your ass please. Do not modify screens that display information important to public safety, and by all means do not modify the contents of a sign if the sign's contents are necessary to prevent accidents or unfavorable conditions. Also, please do not modify the contents of a sign to read something that may possibly cause accidents or unfavorable conditions. If you do this, you are possibly putting other people in danger and they may be injured or killed. With this in mind, I hope you have a good time replacing a sign's content to display messages like "Free Lemmy", "Want Cloned Don to Al Qaeda", or "For a Good Time Call 1-800 your-number". Thank you and best of luck.

HOW TO HACK FROM A RAW DISK

by NY
It's a known fact that the script kiddies get the press. Legit hackers know enough to keep from getting caught. Here's some info so I don't have to read about newbies in the news and then watch as knee-jerk politicians take away privacy rights.

The first rule of hacking is don't get caught. This means don't be traceable. I'll let you figure out how to get an anonymous (not traceable to you) IP address.

Access the Internet or targeted network from a public phone location (not traceable to you). This may be a hotel lobby, public library, airport, etc. Basically anywhere there is a phone jack (with a dial tone) where you can jack in without any suspicion. (This will require a laptop unless you have an ultra-possible desktop and CRT.)

You may follow those steps only to be caught and handed by what is on your computer. The reality is that data on a hard drive, floppy drive, zip drive, etc. is nearly impossible to erase. Deleting a file and "compressing the recycle bin" as only security for the largest of hackers. Realistically, overwriting the file many times (shredding), defragging the disk, etc. still allows the file information to be recovered with microscopy. Even encryption is not secure, as often the swap file and slack space on the disk are unencrypted. Now you understand why even the US Navy resorted to "hammers and hammers" to destroy data during the USS Hirogry plane ordeal last April.

So what to do? Simple, don't store important data on hard drives, floppy drives, etc. Store your backing tools, data, and swap file in volatile memory. Yes, good old RAM. This way if the Red team you down to seize your computer, you can erase all your activities by pulling the plug (or hitting the power button). In addition, when the Red team your computer, the BIOS memory check further ensures your tracks are covered.

Now if you run Linux, you can load the OS and all backing programs etc. directly to a RAM disk from an image on CD. However, if you don't know a little shell from a conch shell, you've got to use Windows. Windows is currently not able to load from a RAM disk, so you must boot to the hard drive and then ensure the swap file, installing programs, and logs are stored on the RAM disk. A good (free) RAM disk program to use is RAMDISK9X.MDI located at www.cookiec.com. There is also a version for Windows NT/2000/XP. The folks at Cookiec are currently working on a hardware based RAM disk called the Kernel Drive which will boot and run Windows without a hard disk (first quarter of 2002).

Once you've downloaded and installed RAMDISK9X.MDI, you need to transfer your swap file to the RAM disk. Go to the control panel →> system →> performance →> virtual memory. Here you can redirect your virtual memory to the RAM disk drive letter. After the system reboots, ensure that the WinSxS.swap file is on the RAM disk.

Next, redirect your environment variables to the RAM disk. To do so, add these lines to your autoexec.bat or type them in at a command prompt.
set tmp=%%temp
set temp=%%tmp
where %x% is the drive letter of your RAM disk.

To verify your changes, type "set" at a command prompt.
Now copy all your pinned hack exploits onto the RAM drive and then throw away the CD. If you are really paranoid, you can temporarily erase the CD. I've heard making the CD in a room where no one is not 100 percent successful in the storying the data (and it stinks).

Remember, if your hacking programs or shells have log files, make sure they are configured to be stored on the RAM disk as well.

Finally, you may want to set your Internet cookies, cookies, temp files, etc. to the temporary directory on the RAM disk to hide your surfing. To accomplish this, copy the following into Wordpad. Then click File →> Replace and change the "Y" to the letter of your RAM disk. Save the file as ramdisk.reg. Now right-click the ramdisk.reg and click merge. This will make all the changes in the registry. Note, backing your registry first by naming "swreg" from the command prompt (Win+6543 95).

REGEDIT4

```
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Special Paths\Cookie\
Processors="%%temp%"
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Special Paths\Firefox\
Processors="%%temp%"
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Special Paths\Firefox\
Processors="%%temp%"
```

```
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
```

```
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
```

```
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
```

```
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
```

```
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
```

```
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
HKKEY_LOCAL_MACHINE\SOFTWARE\Classes\
Windows\InternetVersion\Internet Settings\Cookie\
Processors="%%temp%"
```

You are now ready to back the anonymous. Just remember where the password gets its Oh yeah, one last benefit to using a ram disk: It is fast. You also don't have to listen to your hard drive

Hacking with Samba

by dkrny

dkrny@hotmail.com

Like it or not, we are living in a Microsoft world. When you have Christmas dinner with your grandparents, chances are you won't see a Starbuck's box with the latest kernel naming on their shiny new Dell or Gateway. Never fear! Thankfully, for the minority who have chosen to install Linux, Samba is here to connect us to the world of Windows. This article gives the reader a quick glimpse of Samba's usage and commands, shows the power those tools give when combined with Linux, and how these tools could be abused. This assumes some Linux knowledge, so if you don't understand what a command does, use the man page!

The tools that comprise the Samba suite (<http://www.samba.org>) operate with the SMB protocol (File Network for Linux/Macintosh). SMB is used with Windows NT/9x/95 to share files and printers. Using Samba's tools (created by Andrew Tridgell), Linux hosts can share files with Windows machines. If you did a full Linux install of any distribution, you probably already have these programs.

The Commands

Below is a list of Linux commands with their Microsoft equivalent. First is the Samba server program called `smbd`. This daemon runs off the config file `/etc/smb.conf` and listens on port 139. If a Windows machine was accessing a share on our Linux box, `smbd` would serve up the processes specified in `smb.conf`. `smbd` is highly configurable. See the man page for more details.

LINE X

```
nish@bookup:~$ ./linex
smbclient //192.168.0.1/S
smbclient //192.168.0.1/S
smbclient //192.168.0.1/S
smbclient //192.168.0.1/S
```

Microsoft file and print sharing service

linux - A 192.168.0.1

not view WAP:0.0.1 (my goal is to do a "net use \\ipaddress\share" but

not one of the solutions/patches I'm using need to substitute ip for the Samba's name)

net use \\192.168.0.1\share

Note the difference in slashes. Each of these commands will get us one step closer to accessing the shares on our target. Now onto the fun stuff!

Finding a Target

First, we need an IP address of a machine running Netbios. You could just search on your school's LAN, or go on IRC and look for people who use netRC. That a better method is to let "whoop" (5.0139-01K-004-rescue) run all night, their "grep open|paste|sort|uniq|cat|tr -d '\n' >ip_addresses" file the next day. You will have a huge list of IPs of boxes running Netbios and many that have shares. (Keep in mind that just because a box has Samba or Netbios doesn't mean it has shares.) Some of those boxes are NT, Windows 2000, and even Linux! And while Windows 98/95 boxes have a huge security hole in the sharing (see http://www.refsec.com/eng/ishrompage.cfm_05.html), very often shares are left unprotected with no passwords at all.

Locating Computers with Shares

Now that we have our list of IP addresses, we must locate which ones have shares. Instead of downloading a fancy scanner, let's be efficient and use a few shell commands. Right is the default shell with Emacs/Emulx, so we will use it. From a bash prompt enter the following:

```
lrsd@boxalhost:~$ for x in `cat ip_addresses`
> do
> nmblookup -A $x >> computer_list
> done
```

The for loop will then go through the file and execute "nmblookup -A theipaddress" on each IP in the list. You will eventually get your principal task. This is a handy method of dealing with IP addresses. Especially considering the body of the loop can be anything you want (ping, showmount -e, or the list export of the result), and a fast shell is likely to be on every Linux box you find.

Enumerating Shares

Now we have a file called `computer_list` which contains the Netbios names/addresses of all the machines we scanned for. Each entry should look something like this:

Looking up status of 192.168.0.10

```
received 8 names
USER18      B <ACTIVE>
WORKGROUP  <00> - <GROUP> B <ACTIVE>
USER18      <03> - B <ACTIVE>
USER18      <20> - B <ACTIVE>
WORKGROUP  <16> - <GROUP> B <ACTIVE>
USER18      <05> - B <ACTIVE>
WORKGROUP  <1d> - B <ACTIVE>
MSBROWSE   <01> - <GROUP> B <ACTIVE>
num_good_sends=0 num_good_receives=0
```

An "MSBROWSE" entry indicates sharing is enabled. We are only concerned about computers with this entry. (Note that although sharing is enabled there may be no shares.) The <00> entry lists the Netbios name which we will use to query the machine for a list of shares by doing `smbclient -I 192.168.0.10/S`. This will return something like the following:

Sharename	Type	Comment
C	Disk	
HP	Printer	
MIRC	Disk	
MS-SIG	Disk	
IPC\$	IPC	

Coding In

You will be surprised at how many C drives are left unprotected, along with other interesting shares. In the above case we would try "smbclient -I 192.168.0.10/S" and use a blank password. If it does have a password (and they are using Windows 95), we can take advantage of the security hole mentioned above, which was made popular by the Windows Physical Program. When you find a share, think of how that access can be leveraged. Granted access to a C drive can be used

to get files, to obtain root passwords.

Add programs to the startup folder you want to have them run.

Use the system as a jumping off point for other activities.

Set up other shares to preserve access.

Obtain a C:\ shell.

Passover personal information about the user.

Samba utilizes the file sharing protocols of Windows and Linux. And if configured, it allows exploration of other systems and networks. Hopefully, I have demystified the `smbd` command and showed how a Unix shell can reduce hundreds of commands to a few lines. Remember, work smarter, not harder!

FUN FACTS ABOUT WAL*MART

by A.W.M.

This is just a follow-up to the article that appeared in 18:3 entitled "Hacking Retail Handi-ware." It provides a little more detail on the technical aspects of Wal-Mart.

Customer Activated Terminal

Wal-Mart relies on the debit pin pad using strip reader as a CAT - Customer Activated Terminal. Pressing the top left button and enter will only return the CAT. Releasing the CAT can also be accomplished by removing the enter button and making direct contact with the silicon chip below in the right bottom corner. As far as the "Enter Password" prompt gives, many a password have I tried (1234, the same number, WALMART, etc.). After an incorrect password has been entered, it just finishes the rebooting process. For assisting the password will give you access to some kind of administrator menu.

Also, the software stored in the CAT can be reinstalled through the register by using a key-flick and entering "18" and pressing the action code button. However a valid operator needs to be signed on (read below). This also updates the register investigation.

Other action codes:

- 1 - computer reconnection card
- 2 - department sales statistics
- 3 - operator/terminal statistics
- 4 - department totals
- 6 - price inquiry mode
- 9 - training mode
- 10 - operator productivity
- 14 - memory usage
- 18 - register config update
- 53 - reload AT&T prepaid card
- 60 - print electronic journal store for previous transaction
- 61 - report previous register
- 68 - online cashier monitoring
- 91 - transaction code lookup

Wal-Mart Registers

There is a universal signal for all Wal-Mart stores. However I am reluctant to release that information. The user and password are the same for that operator. This operator number gives you access to the register (including per-

misions to perform overrides with the IBM 0952 or MM42 key or signing on to the register and performing a transaction to open the drawer). It also gives you access to the POS controller stored in the back room which lets you do many many interesting things: printing detailed confidential sales reports, changing the store name that appears on the top of the receipt, the reader messages on the bottom of receipts, buying events (jewelry, firearms, optical, Christmas), and much more!

Also - some interesting things about the registers:

- There are USB ports on the back.
- They use standard ethernet cards in their registers - very often there are cables located in the lawn and garden and in the sidewalk for portable registers. They use TCP/IP or something else proprietary - this needs more investigation. Unplugging ethernet cable from a register activates "OFFLINE" mode ("OFF" will be in the corner of the screen). All operator numbers are accepted with a key-flick and all supervisor numbers are accepted with key-dick.
- There are two interesting keys on the keyboard you can use when not signed in: S1 and S2. Pressing S1 and entering a number from 1-9 and then S2 will perform a function. I don't know all the numbers. There are ones that will give you messages about hardware problems, system diagnostics, terminal number, etc.

SMART System

There is also a universal login to the SMART (Smart Merchandising through Applied Retail Technology) system with user name "MANAGER" but I don't know the password. The SMART system gives you access to Personal Inventory. Keep it stacked, the A-Merchant. You can do price changes, scheduling, ordering, stockless journal (entry transaction in the store in the last month (!), full details including where credit card numbers), etc. This is a very powerful system. Users only have access to options granted to them by the store manager or co-manager. However, management tends to leave themselves signed on at various locations...

You can access the SMART system through

the service desk using a computer running Windows 3.1. It gives you a menu: "WAREHOUSING REPAIR, SMART SYSTEM". After clicking SMART SYSTEM, it opens a ether session. It lets in as a user called "return". Pressing Ctrl-C after the login but before the system loads the SMART system executable will drop you to a 5 prompt. "uname" reveals "NCR" and the version number. You can read (re)password which will give you real and other system user's encrypted passwords. You may also want to try and "set" a user called pit with password pit. The SMART system can also be used at the store located in the traveling office, or at various death terminals in the back.

The SMART system can also be accessed through the use of possible devices known as "Relouse" or "60ns" depending on what you ask (www.telkon.com has lots of details, but few technical specifics). They run DOS, and you can access a DOS prompt. You get a menu like this when nobody is logged on:

SMART PHARMACY CONFIG

If someone is logged on, even better. You can explore! The ALPHA button lists you type in letters. When it's off it gives you access to function keys:

- F1 - help
- F2 - available commands
- F3 - exit
- F4 - accept
- F7 - previous screen
- F8 - forward
- F10 - finalize
- F12 - cancel

Arrow keys control selection of menu, enter accesses (doh!).

Press F3 several times and you'll get back to the main (SMART PHARMACY CONFIG) screen. Select SMART, press Ctrl-C a few times (ALPHA key on CTRL is in the corner), and it will ask "Renewance Batch Job? (Y/N)". Press Y. You are now at a DOS prompt. There should be an A, and a B, drive. You can key in almost any character using a combination of function/shift/control keys. Now to get back to the main menu, hold Function, Enter, and the ON button. Press the ON button several times when holding Function and Enter. This is I guess the equivalent of Ctrl+Alt+Delete. You can probably do an "exit" as well, but I haven't tried.

Pharmacy Computers

The pharmacy uses an RS/6000 running AIX or INFORMIX. However, at the login prompt entering "smart" (no password) gives you access to the SMART system. The pharmacy RS/6000 has a modem for prescription downloading? or something else. Thus, remote access to the SMART system. How about making down that Playstation 2 you've been wanting? Or ordering 100 gallons of M&M's? Oh, the possibilities!

Suspicious Handheld Device

This is what the door greeters use when the EAS (Electronic Article Surveillance) system detects an activated source tag. Theoretically, after an alert is rung over the scanner, it should go by the deactivator and deactivate. But this is often not the case. The deactivator looks like a metal detector type thing. When looked into its base usually found at the service desk, the password is 1234 or the store number (found on the top of a receipt with the \$1: prefix, e.g. 0347). Enter "5" to enable "Manual Deactivator", press the gray button over a tag and it deactivates it. It is search mode - doesn't deactivate, only searches. It is often mode - 1234 or store number is the password. This device completely stops working after two hours of being disconnected from the base to protect against someone stealing it. The base is usually scooped into the wall or service desk counter.

Function Key	Description
F1	help
F2	available commands
F3	exit
F4	accept
F7	previous screen
F8	forward
F10	finalize
F12	cancel

Marketplace

Headlinings

REX: THE JET PROP CONFERENCE will be held in Las Vegas on Nov. 26-27. Rex will be selling \$2,000 square feet of floor space in the main show building for EXPO International, with one space reserved for the exhibiting trade. Rex is also offering a number of exhibitor spaces for sale. The conference will be held at the Las Vegas Convention Center. Rex is also offering a number of exhibitor spaces for sale. The conference will be held at the Las Vegas Convention Center. Rex is also offering a number of exhibitor spaces for sale. The conference will be held at the Las Vegas Convention Center.

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SOCIETY

Have you ever seen the

See him? He's the one from

Adriano Panico, the author

to have a beard for

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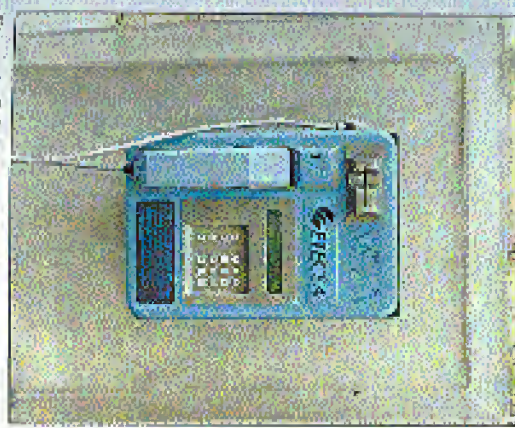
Payphones of Countries We're Mad At

Part One = CUBA



A popular payphone kiosk in Havana. And that's not an ad for smokers in the background.

Photo by T. Afole



Ericsa is Cuba's state-owned phone company.

This photo is Havana takes screenshots.

Photo by Fawel Awerin



Another model that's real high tech (except in Regla).

Photo by T. Afole

All meetings take place on the first Friday of the month. Unless otherwise noted, they start at 5 pm local time. To start a meeting in your city, leave a message & phone number at (800) 751-2600 or send email to meetings@2600.com.

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